4.0. POPULATIONS AT RISK: SURROGATE MARKERS AND SURVEY DATA

Besides HIV/AIDS-specific data, such as from HARS and the CBW Survey, other types of data can illuminate the nature and spread of HIV/AIDS from a behavioral health perspective. These feature indirect measures or surrogate markers from secondary data sets, such as vital statistics and communicable and reportable disease registries. They also include data from adult and youth population-based surveys, such as behavioral risk factor surveillance surveys from several sources, including the Centers for Disease Control and Prevention (CDC) and the UTK Community Health Research Group (CHRG). Other important data sets that provide indispensable data on special high risk population subgroups, such as prisoners, the homeless and IDUs, include the CHRG's statewide study of arrestees in Tennessee and an upcoming statewide study of emergency room patients, both sponsored by the TDH. All three types of data are discussed in extending the portrait of HIV/AIDS in Tennessee.

4.1. Surrogate Markers

Surrogate markers are used to measure indirectly behaviors and events related to the development of disease and injury, including HIV/AIDS. "Surrogate markers" refer to certain identifiable behaviors that substitute for, and strongly indicate, the presence of the behavior one is attempting to measure. These behavioral measures often are collected regularly and for small areas such as counties. They can be used to show changes in trends. Also, they are sensitive to signs of changing community policies and practices and the introduction of new disease transmission factors. Limiting their usefulness are possible under-reporting of events, and over- or under-representation of certain high risk exposure sub-populations, as well as lack of a one-to-one relationship with disease incidence.

In the case of HIV infection, certain conditions or events make it more likely that a person will contract HIV/AIDS or that HIV will be transmitted in a population subgroup or locale. Indirect measures include adolescent fertility, such as pregnancy and birth rates, and rates of sexually transmitted diseases (STDs). For example, unprotected sex is one mode of exposure to HIV infection. One way of examining the level of unsafe sex in a particular population is to look at STD levels. While STD rates provide a measure of unsafe sexual activity, they do not necessarily correlate with HIV risk, since HIV risk depends both on levels of unsafe sexual activity and on HIV prevalence within a particular sexually active network. STD rates may, however, reflect the potential for HIV transmission and help to identify groups at high risk for HIV/AIDS exposure. STD may serve as a direct marker, since in ulcerogenital STDs, the skin is not a barrier to the HIV virus, and susceptibility to HIV is enhanced by these infections.